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Early Warning and Crop Condition Assessment

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LIMITED AREA COVERAGE/HIGH RESOLUTION PICTURE TRANSMISSION, LAC/HRPT TAPE CONVERSION PROCESSOR USER'S MANUAL

S. O. O'Brien

(E81-10077) LIMITED AREA COVERAGE/HIGH
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16. Abstract The program, LACSEG, converts LAC/HRPT data tapes to the JSC defined Universal format. The Universal formatted data tape is then processed the normal way by the FAS IMDACS system.					
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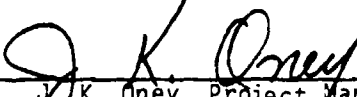
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PICTURE TRANSMISSION, LAC/HRPT
TAPE CONVERSION PROCESSOR USER'S MANUAL

Job Order 73-368

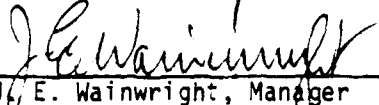
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For

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LIMITED AREA COVERAGE/HIGH RESOLUTION PICTURE TRANSMISSION,
(LAC/HRPT) TAPE CONVERSION PROCESSOR

1. GENERAL INFORMATION

1.1 SYSTEM NAME

LACSEG Processor

1.2 PRIMARY USER

Early Warning/Crop Condition Assessment Project Personnel

1.3 DEVELOPING ORGANIZATION

Lockheed Engineering and Management Services Company, Inc. - S. O. O'Brien

1.4 COMPUTER FACILITY

This processor runs on a DEC PDP 11/70 computer system with the IAS operating system. It is implemented on the USDA FAS computer facility in Houston, Texas.

1.5 REFERENCES

1.5.1 NOAA Polar Orbiter Data (Tiros N) Users Guide Preliminary Version - January 1979.

1.5.2 PHO-TR543 Universal Data Tape Format

1.5.3 DEC-11-LMFUA-B-D Fortran IV Users Guide

2. SYSTEM DESCRIPTION

2.1 PURPOSE

The purpose of the LACSEG processor is to convert the LAC/HRPT data tapes to Universal formatted data tapes which can be processed by IMDACS.

2.2 USAGE

The LACSEG processor is set up as a batch run. The input to the processor will be the multi-reel LAC/HRPT tapes and control cards. The output will be a Universal formatted image tape consisting of the data lines and pixels requested on the control cards. Both input and output tapes will be 1600 bpi. The 10 bit input pixel data will be scaled to 8 bit data as follows: For channels 1 and 2, all pixel values greater than 255 will be reset to 255; for channels 3 and 4, all pixel values will be divided by 4. No data will be output for channel 5.

3. INPUT

3.1 TYPES OF INPUT

3.1.1 TAPE

LAC/HRPT tapes. See reference 1.5.1.

3.1.2 DISK

None

3.1.3 CARD(S)

The processor requires the following cards for system control and input data. See sample deck setup in Figure 1.

Col 1:

+

\$JOB ERLYWARN2 LACSEG 300

\$MOUNT/FOR/DENSITY:1600 MM: TAPEIN XX1:

\$MOUNT/FOR/DENSITY:1600 MM: TAPEOUT XX2:

where TAPEOUT is a scratch tape to be saved.

\$ASSIGN XX1: 1

\$ASSIGN XX2: 2

\$RUN LACSEG

N = 1 digit file number for input processing

M = 1 digit file number for output processing

XXXXX = 5 digit line start number, i.e. 00001 for starting with the first line (right justified)

XXXXX = 5 digit line ending number, i.e. 09999 to process entire tape

XXXXX = 5 digit pixel start number, i.e. 00001 to start with first pixel on starting line (right justified)

XXXXX = 5 digit pixel stop number, i.e. 02048 to process entire scan line (right justified)

\$DISMOUNT XX1:

\$DISMOUNT XX2:

SE0J

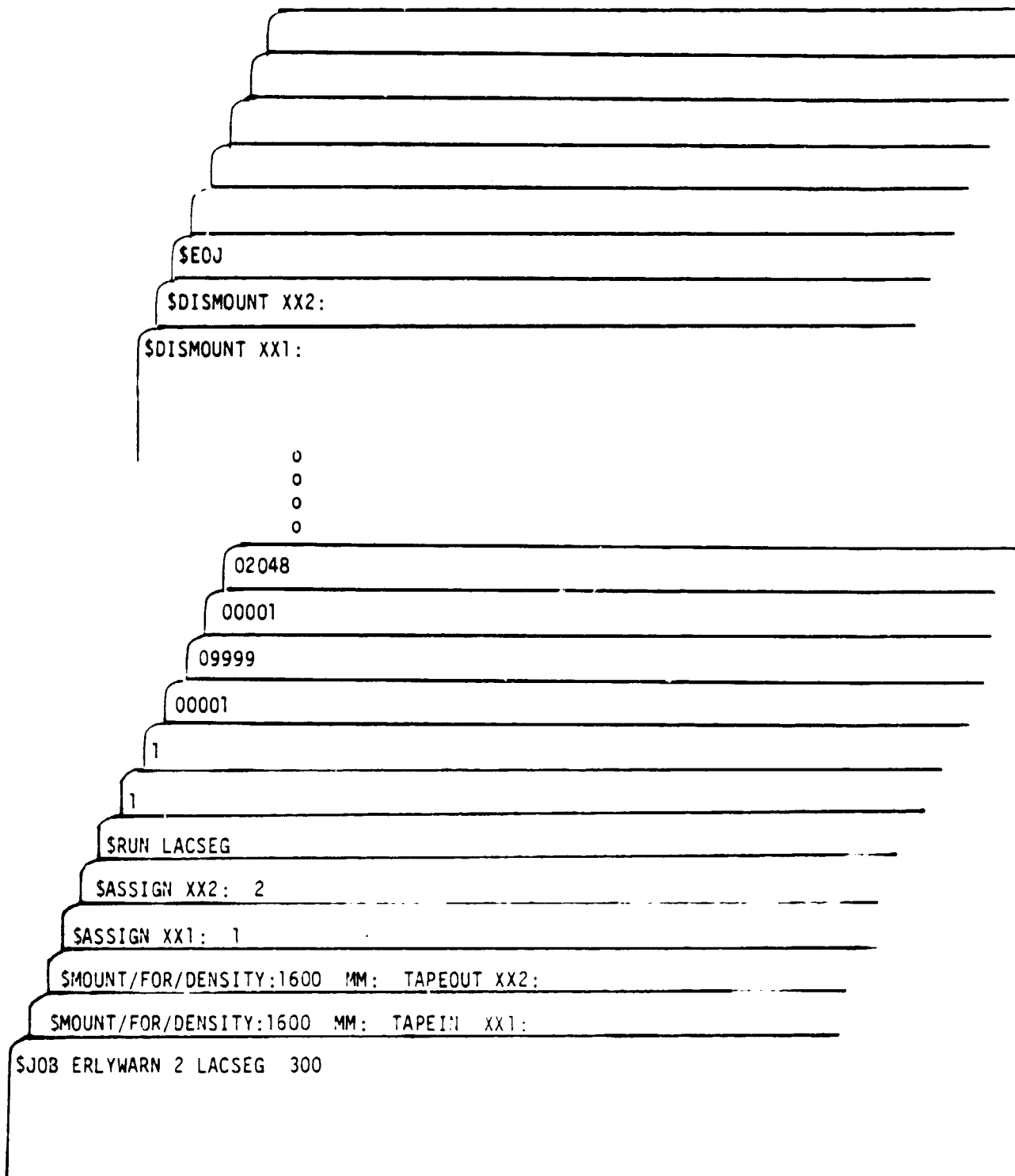


Figure 1
Sample Deck Setup
3-2

4. PROCESSING

4.1 INTERACTIVE

Not applicable.

4.2 BATCH

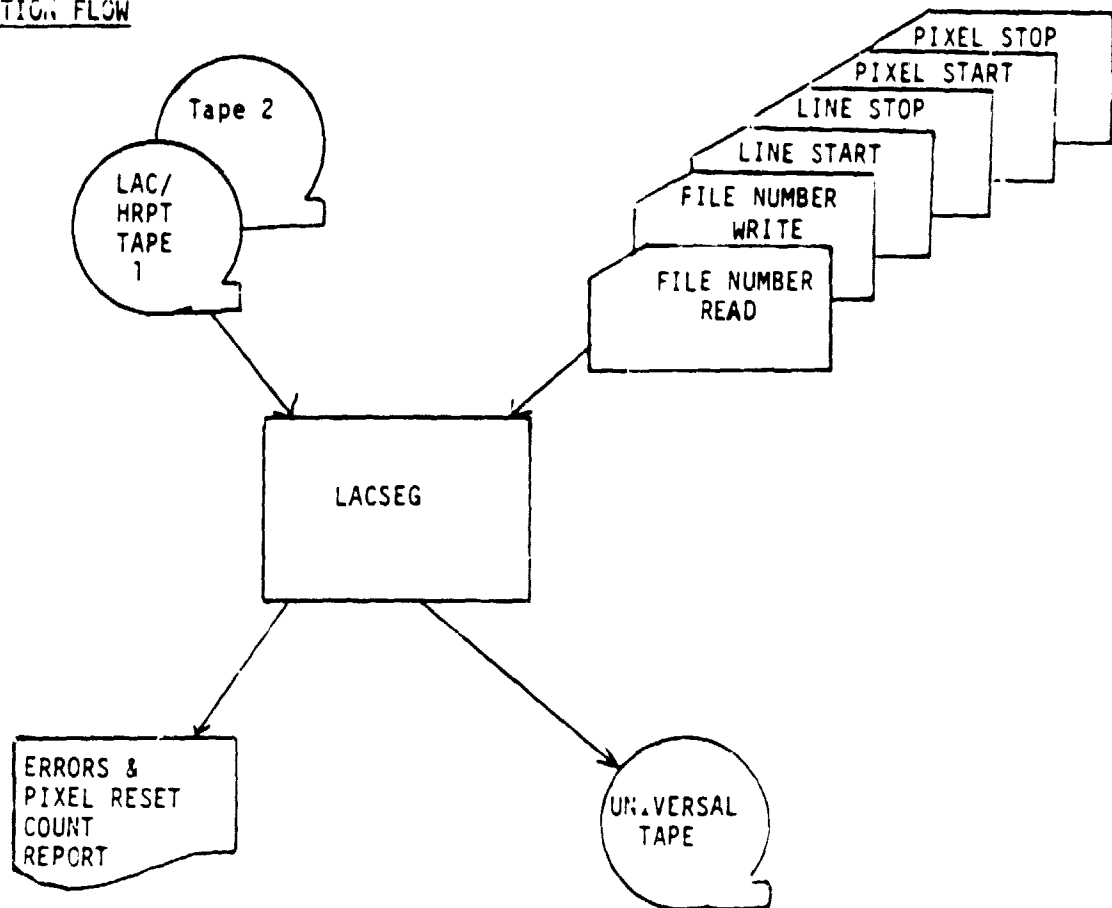
The user must submit the deck of cards as described above with a Batch Job Request form. An example of the request form follows:

BATCH JOB REQUEST	NAME: S. O'Brien	DATE SUBMITTED 7-17-80
REQUEST INSTRUCTIONS: Mount "INPUT 1" tape on one drive Mount "OUTPUT" tape with Write Ring on other drive Run Job Message will appear on TTO requesting: Replace "INPUT 1" with "INPUT 2" Type C to complete job.		
COMPLETION DATE	OPERATOR	

PARS-104 (1-79)

MAGA-5

4.3 EXECUTION FLOW



5. OUTPUT

5.1 TYPES OF OUTPUT

5.1.1 TAPE

Universal Output Tapes, see ref. 1.5.2 for general format information. The header as written by this processor will contain all zero fill except for the following:

<u>Byte #</u>	<u>Data</u>
81-84	Active Channel Bits
90	Number of Channels = 4
91	Number of bits in pixel = 8
92-93	Address of start of video data = 1
96-97	Number of Pixels per channel per scan
100-101	Physical record size for data records = multiple of 180
102	Number of channels per physical record. This field refers to the second and subsequent records of a data set.
103	Number of physical records per scan per channel
104	Number of records ot make a data set
105-106	Length of ancillary block = 70
108-109	Scan start = 1
110-111	Scan end - number of pixels per channel per scan
753	Word size = 16 bits
1778	Number of data sets per physical record
1785-1786	Number of channels in first record of data set
1787-1788	Total number of bytes per scan per channel - same as bytes 96-97

5.1.2 DISK

Not applicable.

5.1.3 PAPER

A report of any tape processing errors and a count of the number of pixels on channels 1 and 2 reset to 255 will be printed on the line printer.

Example:

2722003 PIXELS ON CHANNEL 1 WITH VALUES OVER 255. THESE WERE RESET TO 255
2430702 PIXELS ON CHANNEL 2 WITH VALUES OVER 255. THESE WERE RESET TO 255.

6. SPECIAL INSTRUCTIONS OR RESTRICTIONS

The job normally runs approximately 1-1/2 hours. However, run time will depend on system loading.